

ON THE ASIATIC SPECIES OF MOLOSSI.

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The *Molossi* are found in all the warmer regions of the earth, but apparently exist in greatest abundance in the tropical and sub-tropical parts of America. They have been divided into several genera of which two only have hitherto been discovered in Asia; of these *Nyctinomus* is alone represented in the Peninsula of India; the other genus *Chiromeles*, containing a single species *C. torquatus*, inhabits the Malay Peninsula, Java, Sumatra, Borneo, and probably other islands of the Malay Archipelago.

Although *Nyctinomus* has a distribution equalled only by *Vespertilio*, extending through the warmer parts of the five great continents, a single species only, *Nyctinomus plicatus*, has been known to exist in the Indian Peninsula.

Another species of *Nyctinomus* has been reported from China by Mr. Swinhoe, most probably *N. Cestonii*, Savi, also from Southern Europe.

The total number of Asiatic species of *Molossi* known previous to 1873 was therefore three, and to these I added in January 1873 a new and most remarkable species, *N. Johorensis*, which Mr. Wood-Mason's private collector* obtained at Johore in the Malay Peninsula, and in this paper I shall describe another new species from India (preserved in the collection in the Indian Museum) which had been confounded with *N. plicatus*.

Genus NYCTINOMUS, Geoff. *Ears connivent*.

Dentition:—in. $\frac{2}{4}$; c. $\frac{1-1}{1-1}$; p. m. $\frac{2-2}{2-2}$, m. $\frac{3-3}{3-3}$.

a. *Ears close together in front, their inner margins having a common point of origin on the forehead; tragus expanded and rounded off above.* (Subgenus, *Dinops*).

NYCTINOMUS CESTONII.

Dinops Cestonii, Savi, Bull. de Sc. Nat., VIII, p. 286.

Dysopes Cestonii, Wagner, Suppl. Sereber Säugeth., V, p. 702.

Nyctinomus insignis, Blyth, Cat. Mamm. Mus. Asiat. Soc. Beng.

? *Dysopes (Molossus) Rüppelii*, Swinhoe, Proc. Zool. Soc. Lond., 1870, p. 619.

A specimen in the Indian Museum labelled by Blyth "*Nyctinomus insignis*, Blyth" sent by Mr. Swinhoe from Amoy, undoubtedly belongs to this species. It is an adult male agreeing in every respect with specimens from Southern Europe, having also the peculiar throat pore concealed by the long hair of the neck. I have no doubt that the specimen obtained also at

* I have since ascertained that the specimen alluded to by the author was captured by my valued correspondent Mr. James Meldrum of Johore. J. W.-M. [Editor].

Amoy by Mr. Swinhoe and referred to by him under the name of *Dysopes Rüppelii* belongs to this species also.

This adds another species to the large number of *Chiroptera* known to be common to Europe and Asia.

NYCTINOMUS TRAGATUS, n. sp.

The shape of the tragus is similar to that of *N. Cestonii*, and has the same relative size; ears like those of *N. plicatus* but not connected by a band in front; wing-membrane from the ankles; calcaneum distinct, terminating in a lobe; free portion of the tail shorter than in *N. plicatus*.

This species, though so very well distinguished from *N. plicatus* by the above-mentioned characters, resembles that species very closely in general aspect, and the measurements of the different parts correspond so closely that on a superficial examination it may be confounded with it.

I found, in a bottle in the Indian Museum which had been labelled *N. plicatus* by Blyth, two specimens, of which one only was referable to that species, the other presented the characters enumerated above and so has formed the type for my new species. The Indian Museum has since received other specimens of *N. tragatus* from Rajanpur on the north-western frontier of India, and from Jashpur near Chutia Nagpur.

b. Ears conjoined at the base of their inner margins; tragus very small, quadrate. (Subgenus, *Dysopes*).

NYCTINOMUS PLICATUS.

Vespertilio plicatus, Buchanan, Trans. Linn. Soc., 1800, Vol. V, p. 261.

Nyctinomus Bengalensis, Geoff., Desc. de l'Égypte, II, p. 130.

Nyctinomus tenuis, Horsf., Zool. Researches in Java.

Mops Indicus, F. Cuvier, Dents des Mammif., p. 49.

Dysopes plicatus, Temm., Monog. de Mammal., Vol. 1, p. 223.

I have examined Buchanan's type of this species from General Hardwicke's collection in the British Museum, also specimens of *N. tenuis*, Horsfd. from Java. The only perceptible difference consists in the attachment of the wing-membrane. In *N. plicatus* although a strong raphé passes from the ankle along the tibia to the margin of the wing-membrane yet the latter can only be said to commence from a point nearly midway between the ankle and the knee joints, while in *N. tenuis* the wing has its origin from the ankle joint or very close to it. It would be necessary before separating the Indian and Javanese forms into distinct species to examine a large series of specimens as it is probable that intermediate examples exist.

To this section, distinguished by the very small tragus, and by the connection of the ears in front by a low band, belongs also *N. Ægyptiacus* from Africa.

c. Ears connected in front by a deep band produced upwards, and posteriorly by a second band enclosing a hollow naked space between, on the crown of the head; tragus small quadrate. (Subgenus, *Chærephon**).

NYCTINOMUS JOHORENSIS.

Nyctinomus Johorensis, Dobson, Proc. As. Soc. Beng., January 1873.

I have nothing to add to my description of this very interesting species. The type specimen preserved in the Indian Museum, an adult male, is the only representative of the species. It would be very desirable to obtain other specimens, especially females, as the peculiar cavity on the head between the ears may be a secondary sexual character analogous to the frontal sac of some species of *Phyllorhina*.

Genus CHIROMELES, Horsf. *Ears separate, distinct.*

Dentition:—in. $\frac{2}{2}$; c. $\frac{1-1}{1-1}$; p. m. $\frac{1-1}{2-2}$; m. $\frac{3-3}{3-3}$.

CHIROMELES TORQUATUS.

Chiromeles torquatus, Horsfd., Zool. Researches in Java.

Chiromeles torquatus et caudatus, Temm., Monog. de Mammal., I, p. 218 and II, p. 348.

The upper incisors are stout and placed close together; the upper premolar is large and tricuspidate; the 1st lower premolar is minute and wedged in the space between the canine and second premolar, which are close together; the last upper molar is less than half the size of the second molar.

* *Χαιρέφων*, Aristophanes, *Aves*, 1296, 1564.